

Kodiak Seine Vessel Cost Survey Results

CFEC Report Number 24-06N
October 2024

Commercial Fisheries Entry Commission
8800 Glacier Highway #109
P.O. Box 110302
Juneau, Alaska 99811-0302
(907) 789-6160

OEO/ADA Compliance Statement

The Commission is administratively attached to the Alaska Department of Fish and Game.

The Alaska Department of Fish and Game (ADF&G) administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility please write:

- ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK 99811-5526
- U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, MS 2042, Arlington, VA 22203
- Office of Equal Opportunity, U.S. Department of the Interior, 1849 C Street NW, MS 5230, Washington DC 20240.

The department's ADA Coordinator can be reached via phone at the following numbers:

- (VOICE) 907-465-6077
- (Statewide Telecommunication Device for the Deaf) 1-800-478-3648
- (Juneau TDD) 907-465-3646
- (FAX) 907-465-6078

For information on alternative formats and questions on this publication, please contact the following:

Commercial Fisheries Entry Commission (CFEC)

Research Section

8800 Glacier Highway, Suite 109

P.O. Box 110302

Juneau, Alaska 99811-0302

(907) 789-6160 phone

(907) 789-6170 fax

DFG.CFEC.Research@alaska.gov

Abstract

This report summarizes the findings of the Kodiak Seine Vessel Cost Survey conducted by the Commercial Fisheries Entry Commission (CFEC) in 2024. The survey aimed to gather preliminary information on the operational costs incurred by permit holders participating in Kodiak purse seine fisheries. Although not intended to provide high-resolution economic data, the survey serves as a starting point for future research and the development of cost structures that are critical for assessing the economic viability of these fisheries.

Survey participants, consisting of Kodiak seine permit holders, provided data on a variety of expenses, including vessel payments, maintenance, insurance, provisions, and fuel usage. With an estimated annual operational cost of \$219,654, including crew shares and fuel, this fishery may yield average net earnings of approximately \$67,689. However, the report notes significant variability in costs and the likelihood that many permit holders will earn less than the average, requiring participation in multiple fisheries to sustain operations. The results provide a snapshot of the current cost landscape and will guide CFEC's future data collection efforts on fisheries economics.

Prepared by Daniel Strong

Introduction

In 2023, the Commercial Fisheries Entry Commission (CFEC) began gathering information about the costs fishing permit holders in Alaska must pay to participate in commercial fisheries. Towards those efforts, CFEC distributed an email survey to Kodiak seine permit holders, entitled the Kodiak Seine Vessel Cost Survey.

The purpose of this report is to provide a summary of the Kodiak Seine Vessel Cost Survey. This survey was short and designed to get the maximum feedback from respondents regarding their fishing costs. This survey is not designed to gather high-resolution economic information regarding the costs required to participate in the Kodiak purse seine fishery.

This survey will be the first of many. The results from this survey will inform future surveys conducted by CFEC. The information gained will be primarily useful for the development of cost structures. Cost structures are essential when seeking to understand net earnings in individual fisheries, and if individual fisheries are economically viable.

Survey Methodology

Individuals who held a permit in the Kodiak purse seine fisheries from 2018 through 2022 and for whom the CFEC had valid a valid email address, totaling 337 individuals, received an initial email on February 27, 2024. The email contained an introductory letter, along with a link to the survey questions using Survey Monkey. Follow up reminder emails were sent to individuals who did not respond on April 8 and April 15. The survey was closed on April 23, 2024. Out of the 337 individuals emailed, 274 opened the survey but never responded, 22 never opened the email, 39 email addresses were found to be invalid, and 2 individuals opted out of the survey (Table 1). Individuals that owned more than one permit were emailed a survey for each permit.

Table 1: Survey Responses by Permit Type

	Kodiak Sac Roe Seine	Kodiak Sac Roe Seine and Gillnet	Kodiak Food and Bait Seine	Kodiak Salmon Seine
Complete		1		86
Incomplete	23		1	219
Partial				7
Total Surveyed	23	1	1	312

Kodiak permits were chosen because Kodiak, a relatively large community by Alaskan standards, hosts several significant fisheries in close proximity. Additionally, Kodiak offers many amenities necessary for permit holders to operate, in contrast to many other Alaskan fishing communities where populations are seasonal. In these isolated communities, permit holders must make numerous forward-thinking logistical decisions before the fishing season starts. The decision to target seine permits was based on the widespread use of seine gear in various fisheries throughout Alaska, including salmon, herring, and other saltwater fisheries.

The survey consisted of a series of questions aimed at determining operation costs, vessel payments, maintenance costs, insurance, storage fees, cost of provisions, transportation costs, and other costs. We also included questions related to fuel usage, time spent in the fishery, and participation in other fisheries. The introductory letter and the survey itself can be viewed at the end of this document. It is important to note that not all individuals fished their permit.

Survey Results

Survey results are provided question by question. Graphics or summary statistics are also provided when relevant.

Question 1. Do you own your vessel outright, have a lease, financing, or some other arrangement?

About half of the respondents (46.2%) reported owning their own boats, while 38.5% stated that their vessels were financed. A minority of respondents mentioned either a long-term (1.1%) or short-term (1.1%) lease arrangement. Among those who indicated a different arrangement not previously mentioned (13.2%), the majority (66.7%) specified that they did not own a vessel. Some respondents mentioned retirement, discontinuation of fishing in Kodiak Seine fisheries, currently not engaging in fishing activities, using a relative's vessel, and having a lien on their boat.

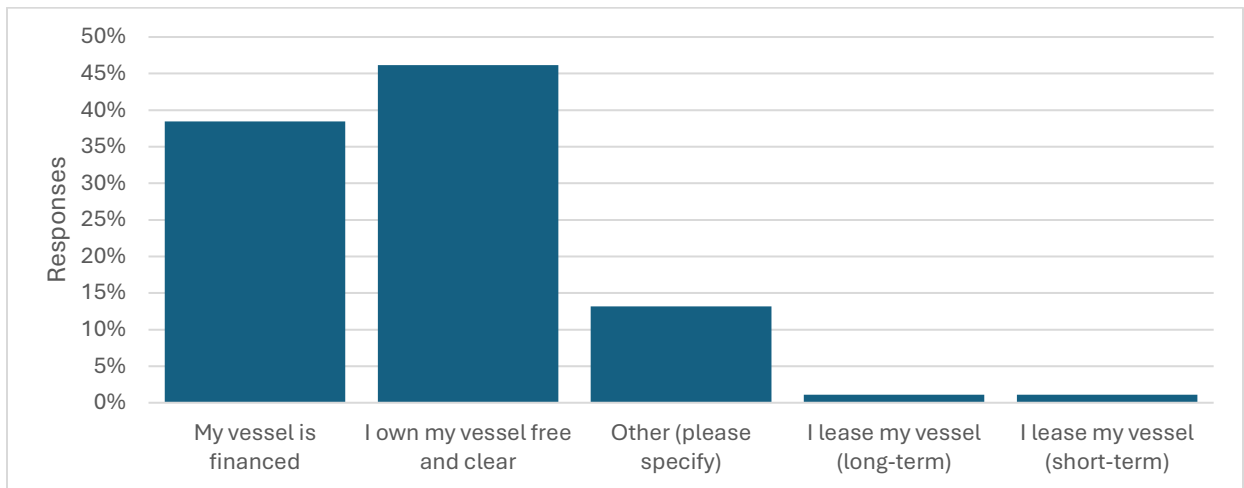


Figure 1. Vessel Ownership and Financing Arrangement

Question 2. If you lease or have financing for your vessel, what is the monthly payment?

Compared with question 1, a smaller percentage of individuals (37%) indicated that they owned their vessels outright. There may have been some confusion because of the duplication of questions. Among those who reported leasing their vessels, the average monthly payment was \$3,572. There was significant variability in responses, ranging from \$1,000 to \$9,800.

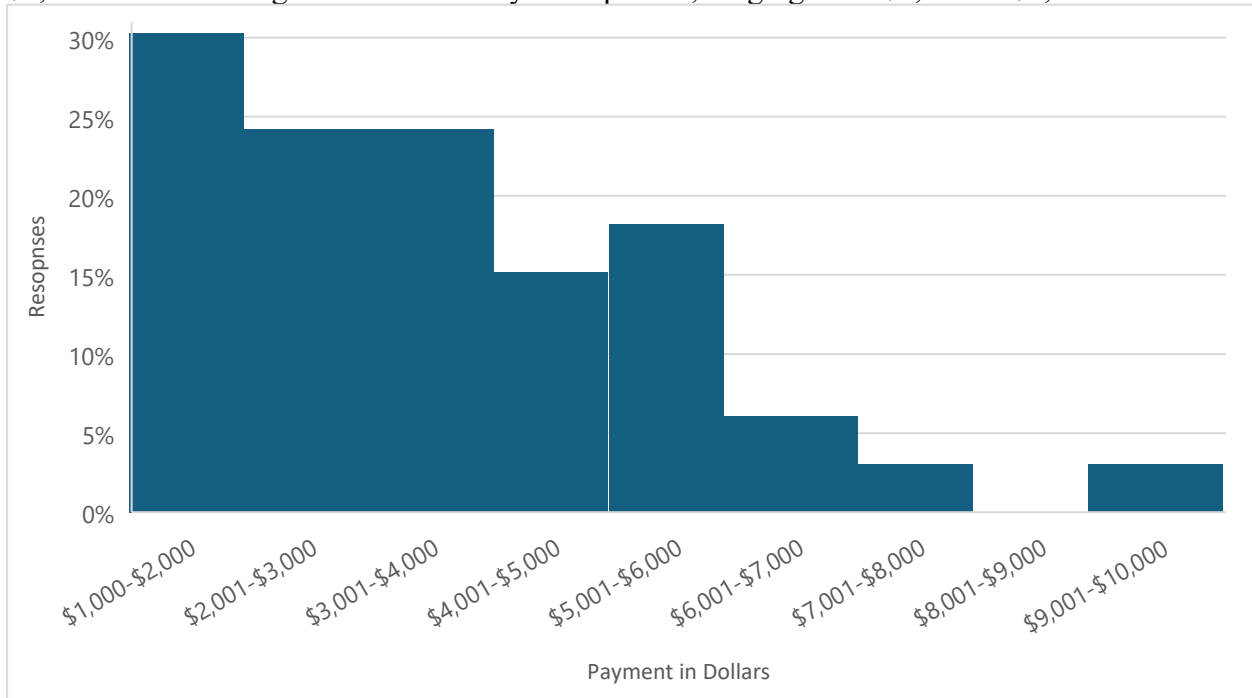


Figure 2. Monthly Finance Payments

Question 3. Do you and your vessel participate in more than one fishery?

Just over sixty-three percent of respondents reported participating in multiple fisheries, while 36.5% fish the Kodiak salmon purse seine fishery exclusively.

Question 4. Out of all the fisheries this vessel participates in, what percentage of time is specific to seine fisheries around Kodiak?

Most respondents (70.9%) reported spending more than half of their time in a single Kodiak seine fisheries while 29.1% reporting spending 50% or less of their time in these fisheries. The average reported time spent in a single Kodiak seine fisheries is 75.9%. Additionally, the largest proportion of respondents (44.3%) stated that they dedicate over 90% of their time to these fisheries.

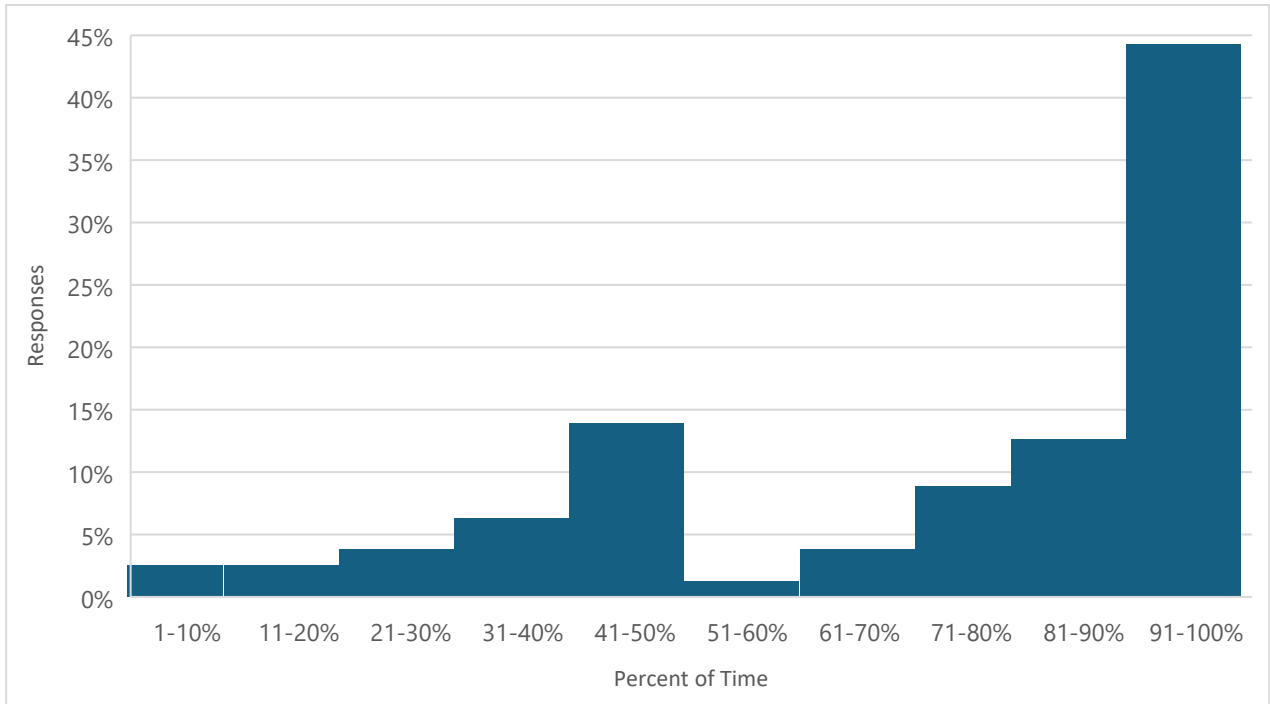


Figure 3. Time Spent in Kodiak Seine Fisheries

Question 5. Please estimate your annual expenditure on vessel maintenance and upgrades.

The average spent on vessel maintenance and upgrades is \$50,553. Most respondents (94.7%) spend no more than \$100,000 each year, and nearly three-quarters (69.3%) indicated that they spent no more than \$50,000. A small number (5.3%) indicated that they spend more than \$100,000.

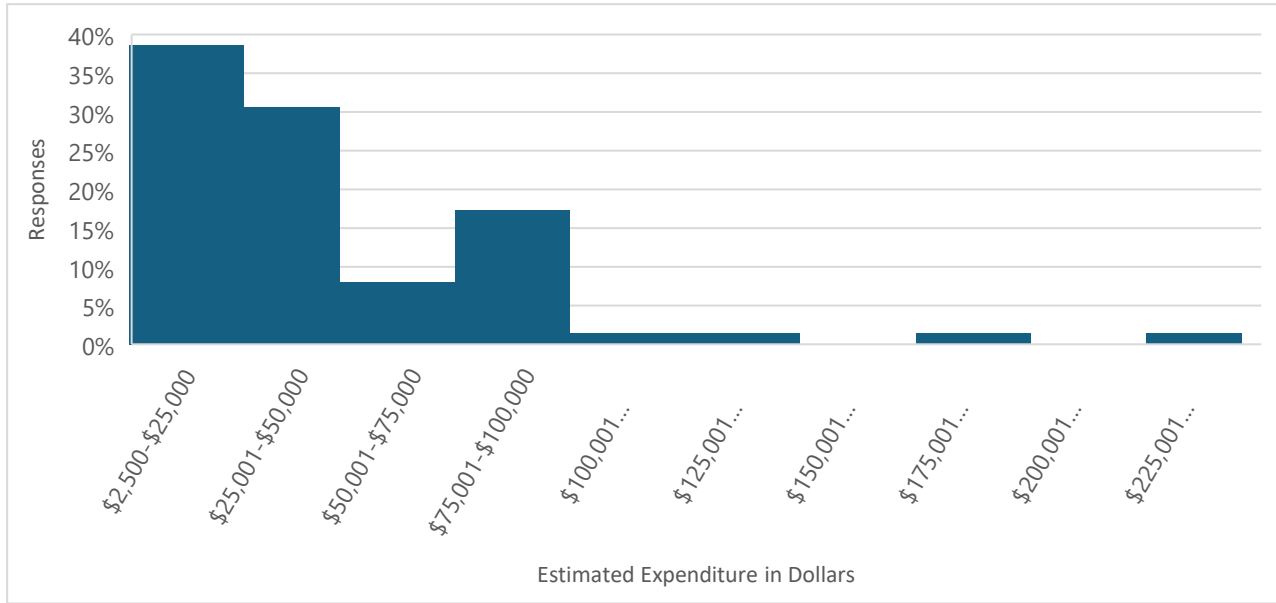


Figure 4. Annual Vessel Maintenance and Upgrade Expenditures

Question 6. What is your annual insurance cost for your vessel?

The average reported annual cost for vessel insurance is \$24,594, and most respondents (77%) had payments falling between \$8,501 and \$34,000.

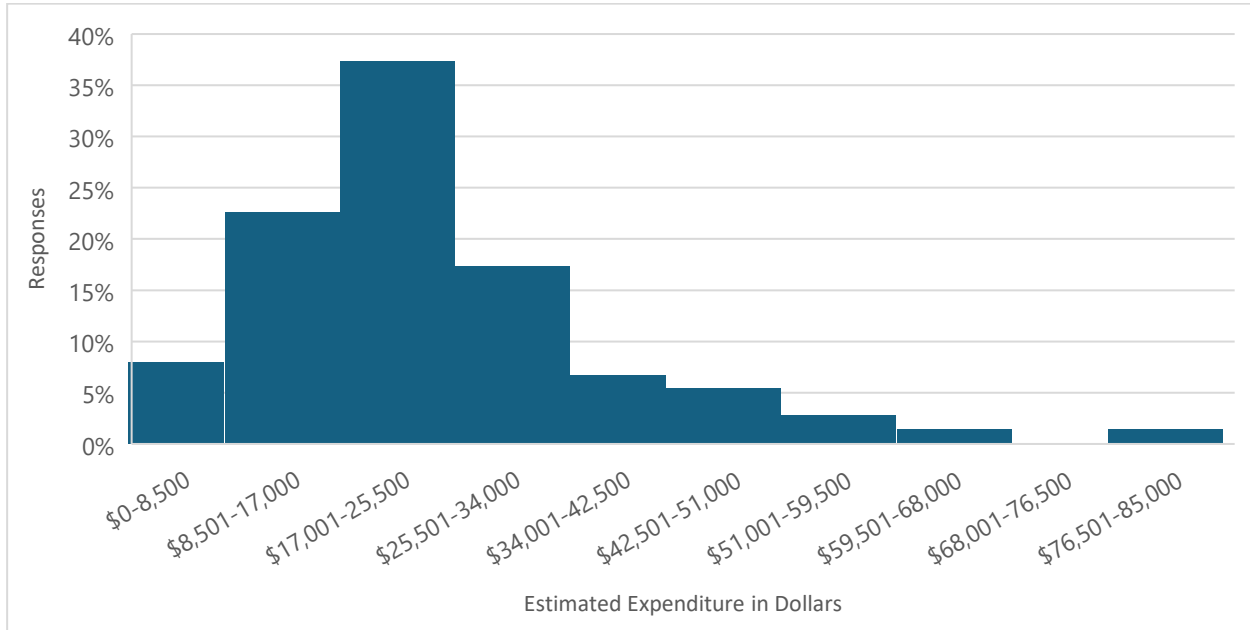


Figure 5. Annual Insurance Expenditures

Question 7. What are your annual docking or storage fees?

The average reported costs for dock or storage was \$5,857, with most respondents (84%) reporting costs of no more than \$8,000.

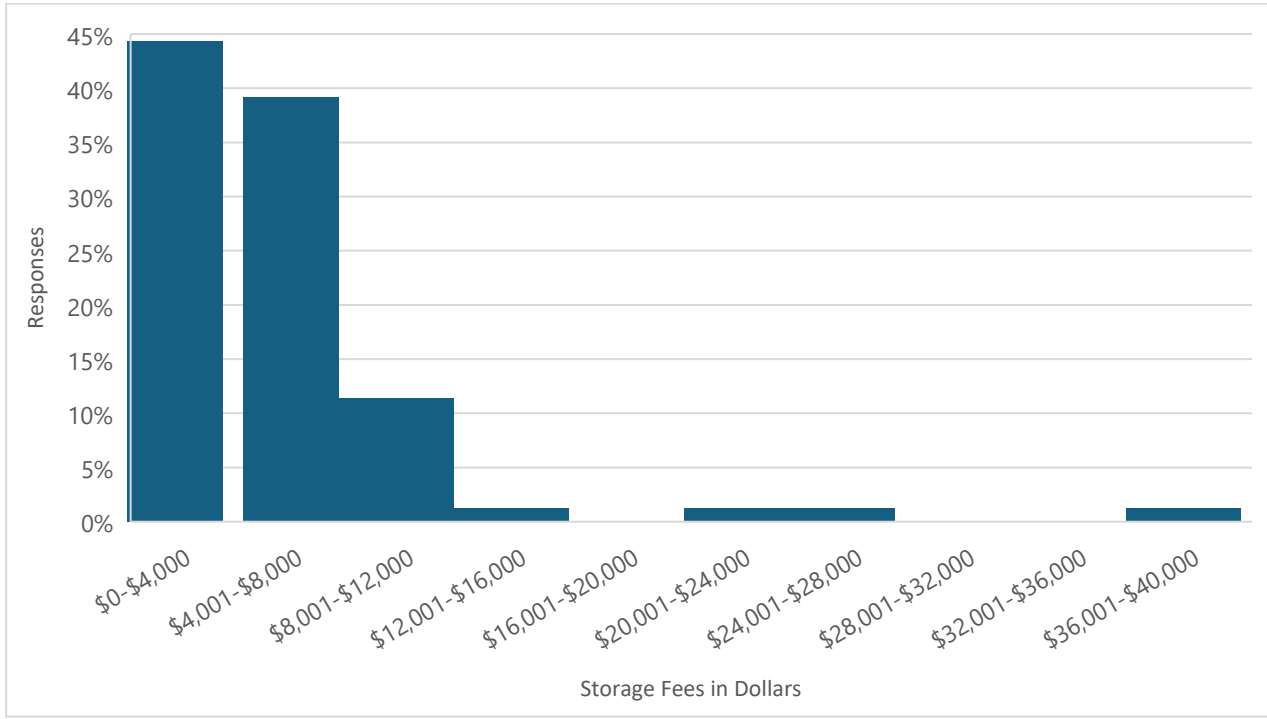


Figure 6. Annual Storage Fees

Question 8. What is the cost of food and other provisions for yourself and the crew during the typical seining season? If you participate in more than one seine fishery, please provide the total for all seine seasons combined.

The average reported cost for food and provisions is \$7,497, and most (77%) respondents reported costs between \$2,001 and \$10,000. These costs showed a high degree of variability, with a low of \$500 and a high of \$25,000.

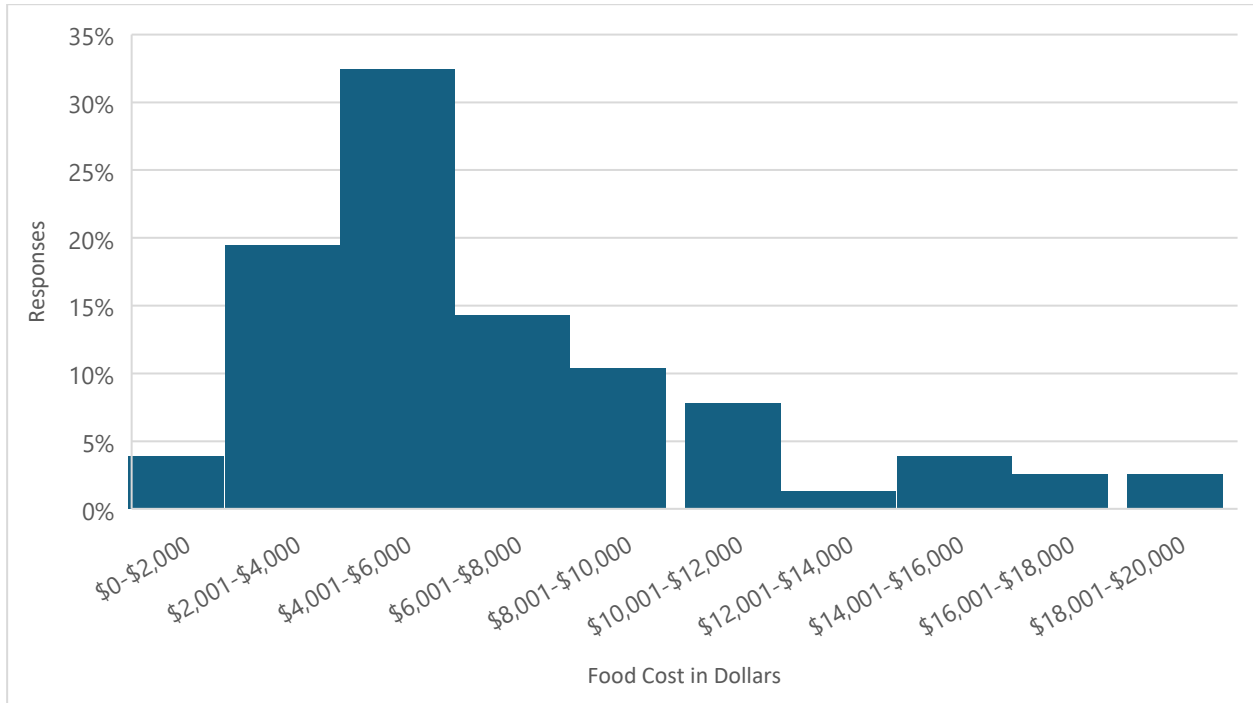


Figure 7. Food Cost for Fishing Season

Question 9. Can you please estimate your costs due to transportation and other logistics (excluding fuel, which will be accounted for in a following question)?

Transportation and logistics costs average \$4,174 a year, with 93% of respondents reporting \$9,000 or less for these costs. Thirteen percent of respondents had no transportation costs, and only 7% reported costs over \$9,000.

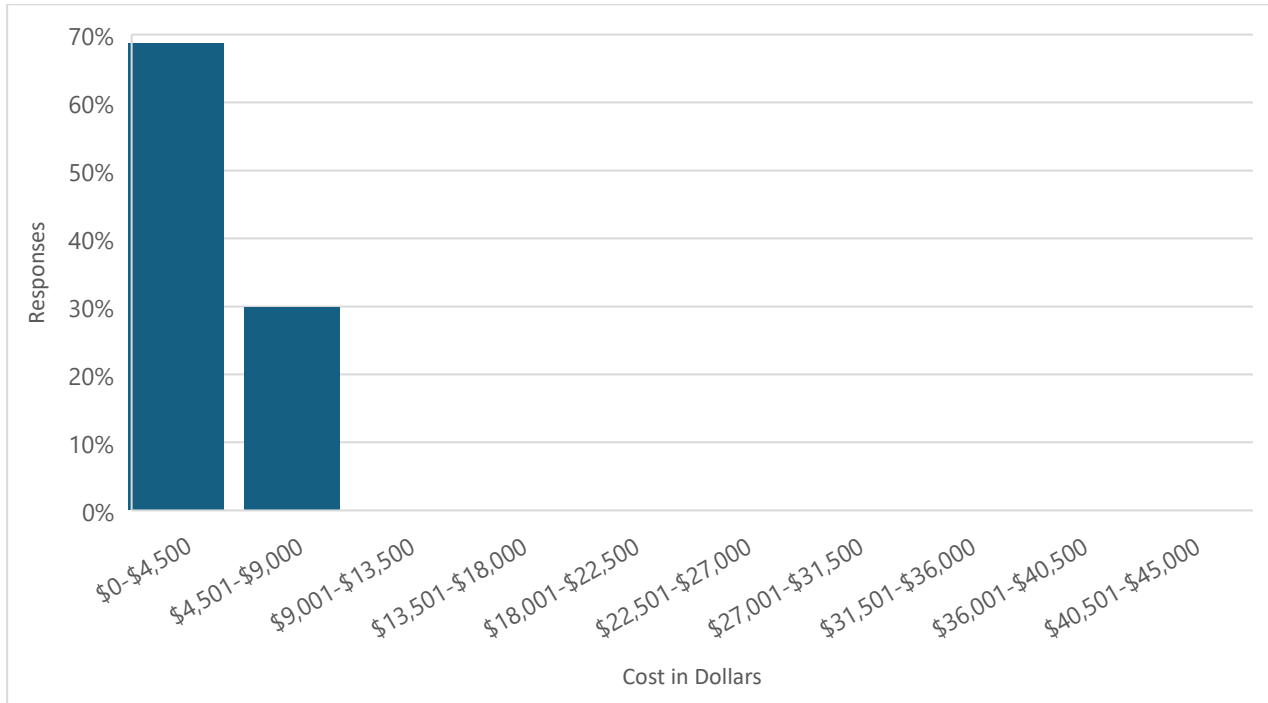


Figure 8. Transportation and Logistics Costs

Question 10. Are there other fixed costs that are not accounted for? If so, what are they?

A majority (61.5%) of those surveyed indicated that they had additional fixed costs, the most common of which were related to maintenance and repair of equipment, renewal fees for vessel licenses and fishing permits, utilities, emergency and safety equipment and documentation/vessel registration. Maintenance and repair of the vessel and nets was the most frequently cited cost (23.9% of responses); followed by the cost of vessel licensing, US Coast Guard documentation and permit renewal (19.6%); utilities, including electricity, internet, and satellite phone service (17.4%); and ensuring safety equipment (life raft repack, EPIRB batteries, flares, survival suit, etc.) is up-to-date (15.2%). Other common costs include property taxes and gear storage. Less common costs were for refrigeration services, continuing education, freight for parts, miscellaneous equipment purchases, engine oil and emergency fund savings.

Question 11. How many gallons of fuel does your vessel use over the course of participating in Kodiak seine fisheries?

Respondents reported an average fuel usage for this fishery of 6,316 gallons. Despite a high degree of variability, with responses ranging from 500 to 25,000 gallons, the majority (93%) of respondents reported using 10,000 or fewer gallons.

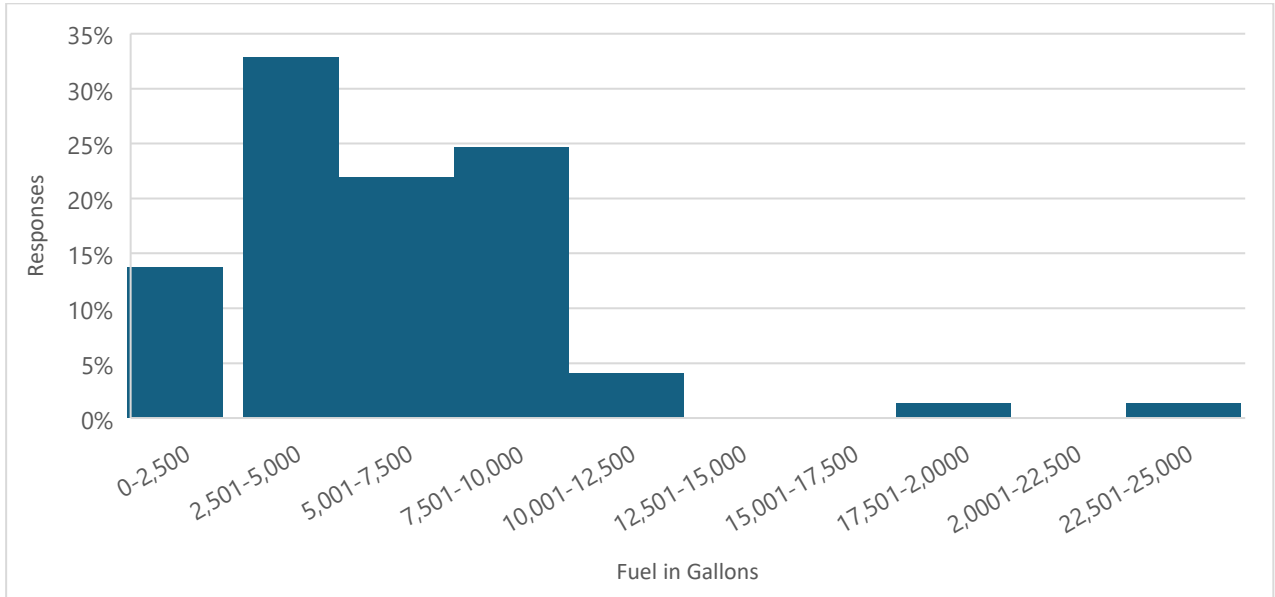


Figure 9. Gallons of Fuel Used During Fishing Season

Question 12. What total percentage of your gross income do deckhands or members of the crew get altogether for the Kodiak seine fisheries? Please answer this question for all crew members combined. For example, if you have two deckhands that each get 10% of the gross income, the answer would be 20%.

The average reported crew share was 34.8% of gross income, and most (87%) reported a crew share between 26% and 40%. Nearly eleven percent paid their crew more than 40% and only 3% paid their crew 10% or less.

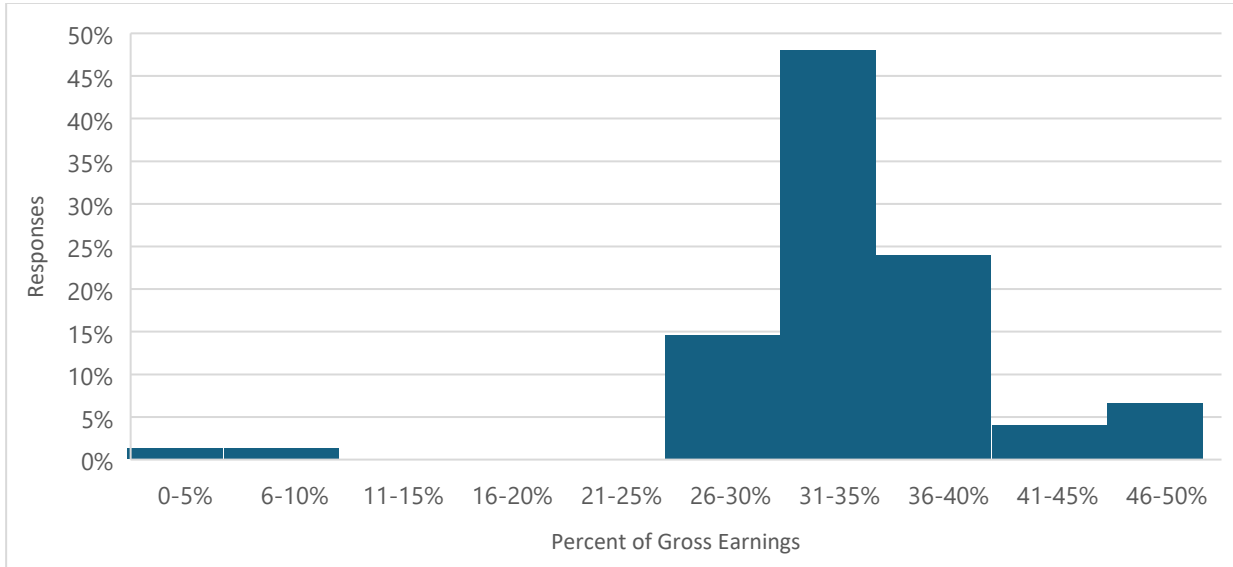


Figure 10. Percentage of Gross Earnings Paid to Crew

Question 13. Are there other variable costs that should be included? If so, what are they, and how do they vary? For example, salt per ton of fish harvested.

A third of respondents (35.2%) indicated that they incurred variable costs not previously mentioned in the survey, mostly related to maintenance costs and fees. Seine repair and replacement was the most cited expense, averaging \$9,625 a year. Expenses related to gear maintenance, freight for parts, lube oil and oil filters were equally common, followed by fish tax and other fees (harbor, launch and haul out, and tender fees), expenses related to breakdowns (leasing a skiff or seine, for example), safety and emergency equipment (e.g. life raft repacks, first aid equipment, Coast Guard vessel inspections). Less commonly mentioned were RSW (refrigerated sea water) system upkeep and maintenance, bait, and salt.

Conclusion

The survey data give us very detailed information about some of the operation costs permit holders sustain to fish, but we still have an incomplete picture of their total costs. Survey respondents provided a great deal of qualitative data on other fixed and variable costs not mentioned in the survey, but not enough cost data to create estimates for these costs. By aggregating survey data and augmenting it with estimates of fuel costs and crew share, we can arrive at a reasonable minimum average cost to participate. The minimum average cost is not a forecast of future costs, but rather a snapshot of operation costs for a single year.

Among the questions where we specifically requested expense information (questions 2, 5, 6, 7, 8 and 9), vessel maintenance constituted the majority (53% on average) of permit holder expenses, followed by insurance (26%). Other costs accounted for 22% of the average cost of operation. From these questions alone, we estimate a median nominal operation cost of \$78,750 per year for a Kodiak seine fishery. This value does not include fuel and other fixed and variable costs necessary to fish.

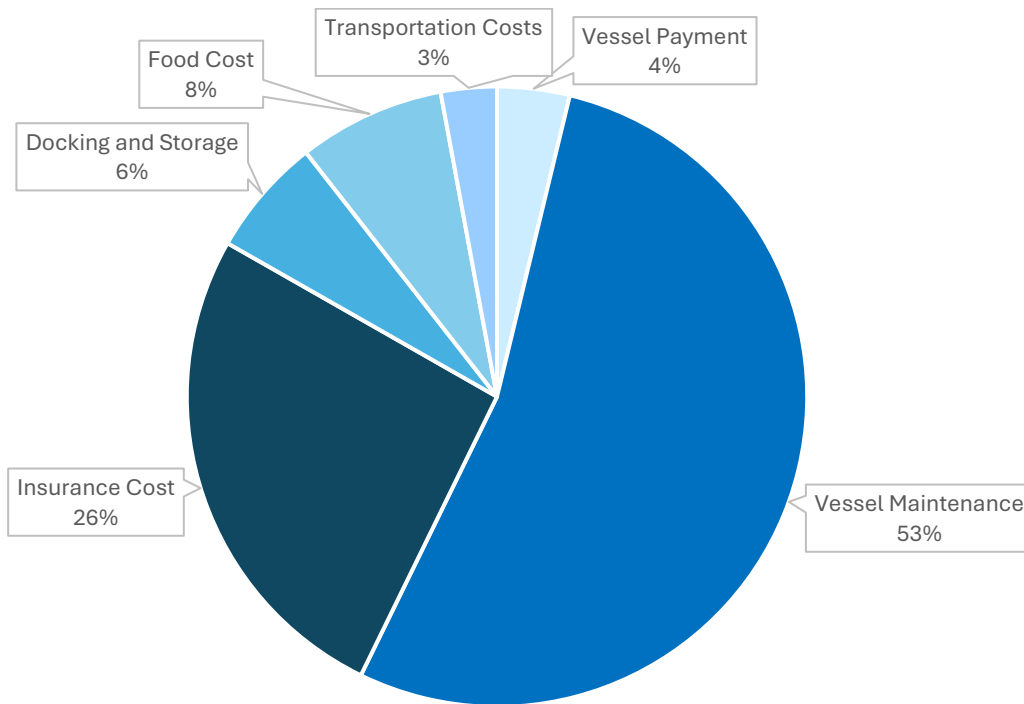


Figure 11. Percentages of Surveyed Permit Holder Operation Costs

We can estimate some other costs based on the responses to questions 11 and 12, which ask for fuel and crew share information. Although we didn't ask about fuel costs, fuel is generally a substantial cost of fishing. Using a ten-year (2014-2023) inflation-adjusted average of \$3.72 for marine diesel in Kodiak¹, we estimate that permit holders are paying \$23,527 on average for fuel, roughly a tenth of estimated average costs for this fishery (see Figure 12).

Out of the 94 complete and partial responses, 86 were for the Kodiak salmon seine permit type (S01K). Therefore, we believe it is reasonable to use Kodiak salmon seine gross earnings information to estimate crew share costs. With a reported average crew share of 34.8% of gross earnings and a ten-year (2013-2022) inflation-adjusted gross earnings of \$287,344 for S01K permits, we estimate an average crew share of \$99,881.

Factoring in estimated fuel and crew share costs, the price of participating in this fishery averages \$219,654 or roughly 76% of the 10-year average gross earnings for this fishery.

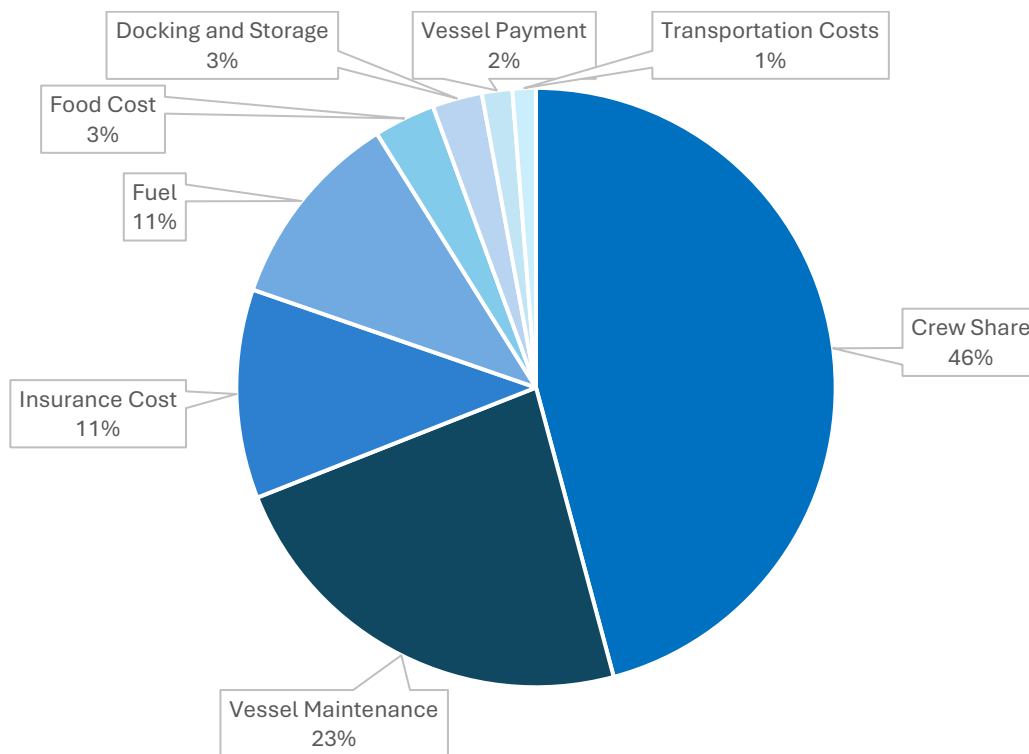


Figure 12. Percentage of Permit Holder Operation Costs with Estimated Fuel and Crew Costs

With the estimated average operation cost of \$219,654 and average gross earnings of \$287,344, this fishery could potentially earn the average permit holder a net income of \$67,689. This is an average and many permit holders will earn significantly less. Additionally, considering that 61.5% of respondents had additional fixed costs and 35.2% had additional variable costs, our estimate likely falls well below true operation cost and thus net earnings are expected to be lower.

¹ From https://www.psmfc.org/efin/data/fuel_ak.txt

Considering the significant operating costs, it is likely necessary for most permit holders to participate in several fisheries to earn enough for the year, and we see from question 3 that most (63.5%) permit holders engage in multiple fisheries. Thus, total gross earnings for a season are anticipated to be slightly higher for most permit holders than the \$287,344 ten-year average for this fishery, which may help to cover some costs. CFEC gross earnings data shows the ten-year average real gross earnings from other fisheries for S01K permit holders is \$7,257. However, we don't know what additional costs these fisheries incur, so we can't make any conclusions about this data point.

Cover Letter and Survey

Hello [FirstName],

The Commercial Fisheries Entry Commission is conducting a survey investigating the costs that permit holders must burden in order to participate in seine fisheries around the Kodiak management area. This survey is designed to collect information about fixed and variable costs.

We would appreciate your input. Your answer will help us examine the economic health of the seine fisheries around Kodiak.

If you own more than one seine permit, you will receive multiple emails. Please answer this survey for the [Permit Type] permit that you own, with serial number [Permit Serial Number].

Thank you for your time. If you have any questions, please feel free to email or call.

Reid Johnson

CFEC Research

907-717-6512

reid.johnson@alaska.gov

Kodiak Seining Vessel Cost Survey
Assessment of Fixed and Variable Costs in the Kodiak Seine Fisheries

Please answer the following questions to the best of your ability. Your responses will help in understanding the cost structure of participating in the Kodiak seine fisheries. For each question, select the answer that best describes your situation.

This survey often refers to fixed costs, variable costs, and gross income.

Fixed costs are those costs that do not change regardless of the amount of fish a permit holder harvests. An example of this would be a registration fee or an insurance bill.

Variable costs are costs that change, usually increasing, with the amount of fish a permit holder harvests. An example of this would be fuel used per day, the cost of ice used to keep fish cool, or the amount of money paid to a deckhand or crew member. All of these costs increase based upon the level of harvest.

Gross income is defined as the total value of all the fish harvested, **without** any costs accounted for, such as fuel, crew shares, or fees.

If you own more than one seine permit for the Kodiak area, please answer this survey specifically for the permit indicated in the email sent to you.

Fixed Costs

This portion of the survey assesses fixed costs.

Fixed costs are those costs that do not change regardless of how many fish are harvested. Examples would be insurance, finance payments, or permit fees.

1. Do you own your vessel outright, have a lease, financing, or some other arrangement?
 - I own my vessel free and clear.
 - My vessel is financed.
 - I lease my vessel (short-term).
 - I lease my vessel (long-term).
 - Other (please specify).
2. If you lease or have financing for your vessel, what is the monthly payment?
 - I own my vessel outright and do not make payments.
 - My monthly payment is:
3. Do you and your vessel participate in more than one fishery?
 - Yes.
 - No.
4. Out of all the fisheries this vessel participates in, what percentage of time is specific to seine fisheries around Kodiak?
5. Please estimate your annual expenditure on vessel maintenance and upgrades.
6. What is your annual insurance cost for your vessel?
7. What are your annual docking or storage fees?
8. What is the cost of food and other provisions for yourself and the crew during the typical seining season? If you participate in more than one seine fishery, please provide the total for all seine seasons combined.
9. Can you please estimate your costs due to transportation and other logistics (excluding fuel, which will be accounted for in a following question)?
10. Are there other fixed costs that are not accounted for? If so, what are they?
 - No.
 - Yes (please specify).

Variable Costs

This portion of the survey assesses variable costs.

Variable costs are costs that change depending upon the amount of fish harvested. Examples would be fuel used per day, or crew share paid to deckhands.

Gross income is defined as the total earnings from all fish harvested, without any costs (such as crew share or fuel) accounted for.

11. How many gallons of fuel does your vessel use over the course of participating in Kodiak seine fisheries?

12. What percentage of your **gross income** do deckhands or members of the crew get altogether for the Kodiak seine fisheries? Please answer this question for all crew members combined. For example, if you have two deckhands that each get 10% of the gross income, the answer would be 20%.

13. Are there other variable costs that should be included? If so, what are they, and how do they vary? For example, salt per ton of fish harvested.